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                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

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=> s 18468-46-7
L1            1 18468-46-7
                (18468-46-7/RN)

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   18468-46-7  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   L-Cystine, N,N'-bis[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]- (9CI)
     (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Cystine, N,N'-bis[[5-(dimethylamino)-1-naphthyl]sulfonyl]- (7CI)
CN   Cystine, N,N'-bis[[5-(dimethylamino)-1-naphthyl]sulfonyl]-, L- (8CI)
OTHER NAMES:
CN   Bis(1-dimethylaminonaphthalene-5-sulfonyl)-L-cystine
CN   Bis(dansyl)cystine
CN   DDC
CN   Di(1-dimethylaminonaphthalene-5-sulfonyl)-L-cystine
CN   Di-dansyl-L-cystine
CN   N,N-Didansyl-L-cystine
FS   STEREOSEARCH
DR   600166-02-7, 10054-42-9
MF   C30 H34 N4 O8 S4
LC   STN Files:   BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CHEMCATS, CSCHEM,
       MEDLINE, TOXCENTER, USPATFULL
         (*File contains numerically searchable property data)

Absolute stereochemistry.
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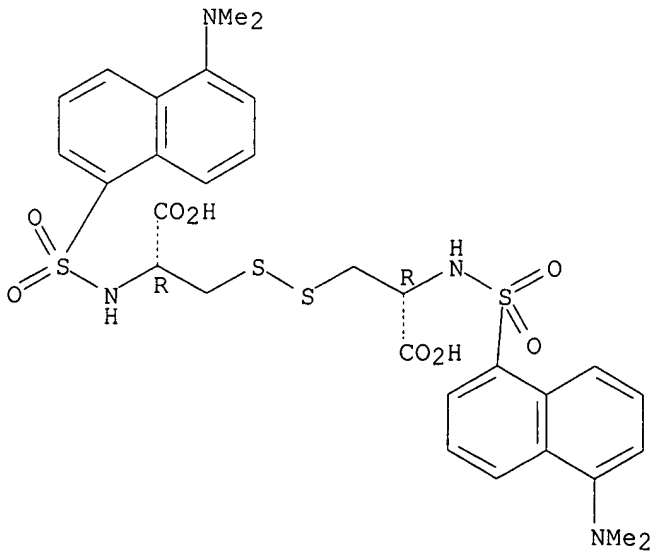

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

33 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
33 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file chemistry

=> s l1
35 FILES SEARCHED...
L2 34 L1

=> dup rem l2
DUPLICATE IS NOT AVAILABLE IN 'AQUIRE, CAOLD, FEDRIP, GENBANK, INVESTEXT, KOSMET, RDISCLOSURE, USAN'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L2
L3 34 DUP REM L2 (0 DUPLICATES REMOVED)

=> d l3 1-34 ibib abs

L3 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1175706 CAPLUS
DOCUMENT NUMBER: 143:416308
TITLE: Kits and methods for selective targeting of apoptotic cells
INVENTOR(S): Ziv, Ilan; Shirvan, Anat
PATENT ASSIGNEE(S): Israel
SOURCE: U.S. Pat. Appl. Publ., 45 pp., Cont.-in-part of U.S. Ser. No. 433,668.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005244812	A1	20051103	US 2005-172934	20050705
WO 2002046147	A2	20020613	WO 2001-IB2282	20011203
WO 2002046147	A3	20031224		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004082499	A1	20040429	US 2003-433668	20031031

PRIORITY APPLN. INFO.:			
IL 2000-140114	A	20001206
IL 2001-141571	A	20010221
IL 2001-145210	A	20010830
WO 2001-IB2282	W	20011203
US 2003-433668	A2	20031031

AB The present invention provides kits and in vitro, in vivo or ex vivo detection methods by using compds. that bind selectively to cells undergoing undergoing a death process, characterized by perturbations of the normal organization of their outer cell membranes. These cells are

designated as PNOM-cells (perturbation normal organization membrane) and occur in numerous medical disorders,e.g. apoptosis, thrombosis, cancer. The invention provides an important tool for detecting and targeting imaging agents or drugs to PNOM cells and can be used in medical practice for diagnostic and therapeutic purposes. The preparation of the imaging agents is described.

L3 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:134330 CAPLUS
DOCUMENT NUMBER: 142:374506
TITLE: Surface Molecular Imprinting by Atom Transfer Radical Polymerization
AUTHOR(S): Wei, Xiaolin; Li, Xiao; Husson, Scott M.
CORPORATE SOURCE: Department of Chemical and Biomolecular Engineering, Clemson University, Clemson, SC, 29634-0909, USA
SOURCE: Biomacromolecules (2005), 6(2), 1113-1121
CODEN: BOMAF6; ISSN: 1525-7797
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Results are presented that demonstrate the successful preparation of ultrathin (<10 nm), surface-confined, molecularly imprinted polymer (MIP) films on model gold substrates using atom transfer radical polymerization (ATRP). 2-Vinylpyridine (2Vpy) was investigated as the functional monomer, and ethylene glycol dimethacrylate (EGDMA) was the crosslinking monomer. Fluorescently labeled N,N'-didansyl-L-cystine and N,N'-didansyl-L-lysine were used as the template mols. to form the MIPs. Spectroscopic and ellipsometric results are presented that follow film formation and growth rates. Results are also presented from fluorescence expts. used to quantify and compare the adsorption capacities of MIP surface films and nonimprinted (NIP) control films. MIP films exhibited higher binding capacities than the control NIP films at all solution concns. of N,N'-didansyl-L-cystine and N,N'-didansyl-L-lysine. Furthermore, template removal from these imprinted films appears to be 100% efficient. Selectivity studies showed that the MIPs display some cross-reactivity between these two mols.; nevertheless, MIPs prepared against one template showed selectivity for that template. A selectivity coefficient of 1.13 was achieved for MIP surfaces prepared against N,N'-didansyl-L-lysine; a value of 1.51 was observed for MIP surfaces prepared against N,N'-didansyl-L-cystine.
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:737513 CAPLUS
DOCUMENT NUMBER: 139:255317
TITLE: Screening method for orthopoxvirus antivirals
INVENTOR(S): Hruby, Dennis E.; Bolken, Tove; Byrd, Chelsea
PATENT ASSIGNEE(S): Siga Technologies, Inc., USA; Oregon State University
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003075833	A2	20030918	WO 2003-US347	20030108
WO 2003075833	A3	20040527		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2472119	AA	20030918	CA 2003-2472119		20030108
EP 1478770	A2	20041124	EP 2003-730996		20030108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
JP 2005531295	T2	20051020	JP 2003-574109		20030108
US 2005233396	A1	20051020	US 2004-504687		20040816
PRIORITY APPLN. INFO.:			US 2002-345646P	P	20020108
			WO 2003-US347	W	20030108

AB The focus of the present invention is an effective anti-poxvirus drug for use in treating or preventing human disease caused by pathogenic poxviruses. More particularly, the present invention relates to antiviral drugs that target the poxvirus proteinase responsible for core protein maturation, a step which is absolutely essential for the production and spread of infectious virions.

L3 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2002:736143 CAPLUS
DOCUMENT NUMBER:	137:257689
TITLE:	Phospholipid scramblase transport system-based method for targeting chemical compounds to cells, pharmaceutical compositions, and therapeutic and diagnostic use
INVENTOR(S):	Ziv, Ilan; Shirvan, Anat; Ebner, Sharon
PATENT ASSIGNEE(S):	NST Neurosurvival Technologies Ltd., Israel
SOURCE:	PCT Int. Appl., 62 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002074346	A2	20020926	WO 2002-IB758		20020314
WO 2002074346	A3	20040212			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2441111	AA	20020926	CA 2002-2441111		20020314
EP 1406664	A2	20040414	EP 2002-713081		20020314
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004534001	T2	20041111	JP 2002-573053		20020314
US 2004141912	A1	20040722	US 2004-471725		20040305
PRIORITY APPLN. INFO.:			IL 2001-142051	A	20010316
			IL 2002-147812	A	20020124
			WO 2002-IB758	W	20020314

OTHER SOURCE(S): MARPAT 137:257689

AB The invention provides a method for selectively targeting a medicinally useful agent into cells in which a phospholipid scramblase (PLS) transport system is activated. The method comprises administering the agent, being a PLS-dependent transported compound (PDTC) to the cells, thereby causing selective transport of the agent into the cells. Examples of the cells are apoptotic cells, activated cells and injured cells. Also disclosed

are pharmaceutical compns. for use by the method.

L3 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:595020 CAPLUS
DOCUMENT NUMBER: 137:151789
TITLE: Determination of hydrophobic Coenzyme A esters and other lipids using a biosensor comprising a modified Coenzyme A- and acyl- binding protein (ACBP)
INVENTOR(S): Knudsen, Jens; Wadum, Maiken Camilla Trolle; Villadsen, Jens; Neergaard, Thomas B. F.
PATENT ASSIGNEE(S): Biosensor Aps, Den.
SOURCE: PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002061096	A1	20020808	WO 2001-DK701	20011024
WO 2002061096	C1	20040429		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1335984	A1	20030820	EP 2001-980193	20011024
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002142347	A1	20021003	US 2001-987108	20011113
PRIORITY APPLN. INFO.:			DK 2000-1683 A	20001110
			US 2001-262366P P	20010119
			WO 2001-DK701 W	20011024

AB The invention relates to a biochem. assay for wide class of hydrophobic CoA esters wherein the analyte is caused to react with a specifically binding, modified protein, and thereby causing a detectable signal. A one step assay for hydrophobic carboxylic acid esters in whole blood, serum, food and feed prepns., tissue exts., acyl-CoA synthetase reaction media and various laboratory conditions using a modified CoA- and acyl-CoA binding protein (ACBP) is provided. Furthermore the invention relates to a construct comprising a peptide and a signal moiety for performing an assay, a kit for assaying hydrophobic CoA esters, hydrophobic carboxylic acids, triacylglycerides, phospholipids, and cholesterol esters. Bovine fatty acid-binding protein was modified to incorporate cysteine residues at three positions (24, 49, and 53) and manufactured by expression of the cloned gene. The protein was conjugated with the fluorescent dye Badan. Badan fluorescence is sensitive to the polarity of its environment and fluorescence will change upon binding of hydrophilic material by the protein. The dye-conjugated protein showed reproducible fluorescence behavior upon being exposed to fatty acids and standard curves could be drawn.
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:701462 CAPLUS
DOCUMENT NUMBER: 139:202324
TITLE: Activated polyurethane modified with latent thiol groups
AUTHOR(S): Alferiev, Ivan S.; Fishbein, Ilia

CORPORATE SOURCE: Abramson Research Center, Division of Cardiology, Children's Hospital of Philadelphia, Philadelphia, PA, 19104-4318, USA
SOURCE: Biomaterials (2002), 23(24), 4753-4758
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A novel type of modified polyurethane with pendant acetylthio groups (as a latent form of thiol groups) has been proposed for the use in surface modifications with various biomols. The polymer was prepared via a modified variant of low-temperature bromoalkylation of urethane hard segments followed by the reaction of pendant bromoalkyl groups with thiolacetic acid in mild conditions. The extent of modification with acetylthio groups can be made as high as 0.45 mmol/g. After deprotection of acetylthio groups and reaction of the resulting thiol groups with an excess of Ellman's reagent, 0.1 nmol/cm2 of thiol-reactive 3-carboxy-4-nitrophenyldithio groups were detected on the surface of films cast from the modified polymer. A sensitive fluorescent probe, dansyl-L-cysteine, was used for the quantification of thiol-reactive groups bound to the surface. The acetylthio-modified polyurethane is sufficiently stable to withstand conditions typical for the high-temperature processing (molding, extrusion) of polyurethanes.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:211284 CAPLUS
DOCUMENT NUMBER: 133:71049
TITLE: Characterization of dansylated glutathione, glutathione disulfide, cysteine and cystine by narrow bore liquid chromatography/electrospray ionization mass spectrometry
AUTHOR(S): Hammermeister, Dean E.; Serrano, Jose; Schmieder, Patricia; Kuehl, Douglas W.
CORPORATE SOURCE: Mid-Continent Ecology Division - Duluth, US EPA, National Health and Environmental Effects Research Laboratory, Duluth, MN, 55804, USA
SOURCE: Rapid Communications in Mass Spectrometry (2000), 14(6), 503-508
CODEN: RCMSEF; ISSN: 0951-4198
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A method using reversed phase high performance liquid chromatog./electrospray ionization-mass spectrometry (RP-LC/ESI-MS) has been developed to confirm the identity of dansylated derivs. of cysteine (C) and glutathione (GSH), and their resp. dimers, cystine (CSSC) and glutathione disulfide (GSSG). Cysteine, GSH, CSSC and GSSG are present at low concns. in rainbow trout (Oncorhynchus mykiss) liver cells. Initially, hepatic cells were sampled from a suspension culture and disrupted upon addition of 10% perchloric acid. The reduced thiols present in the cell exts. were acetylated to prevent dimerization and then the C and GSH species were derivatized with dansyl chloride for fluorescence detection. An LC system using a weak anion exchange column (AE) with fluorescence detection (FLD) was used for sensitive routine anal.; however, it produced peaks of unknown origin in addition to the expected analytes. Analytes were then separated on a C18 RP-LC system using a water/acetonitrile gradient with 0.2% formic acid, and detected using LC/ESI-MS at 3.5 KV which produced an intense ion with a min. limit of detection of less than 0.5 pmole injected (> 10:1 signal-to-noise (S/N)). Subsequently, fractions of effluent from the AE-LC/FLD system were analyzed by LC/ESI-MS to confirm the presence of the target analytes in routine cell exts. Monodansylated GSSG was identified as a product that

could possibly affect the quantification of GSH and GSSG.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:454283 CAPLUS
DOCUMENT NUMBER: 131:85160
TITLE: Methods for monitoring the status of assays
INVENTOR(S): Buechler, Kenneth F.; Anderberg, Joseph M.; McPherson, Paul H.
PATENT ASSIGNEE(S): Biosite Diagnostics, Inc., USA
SOURCE: PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9935602	A1	19990715	WO 1999-US261	19990104
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6194222	B1	20010227	US 1998-3065	19980105
CA 2315932	AA	19990715	CA 1999-2315932	19990104
AU 9921066	A1	19990726	AU 1999-21066	19990104
EP 1046122	A1	20001025	EP 1999-901345	19990104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002501179	T2	20020115	JP 2000-527906	19990104
EP 1602929	A2	20051207	EP 2005-76405	19990104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.:		
US 1998-3065	A	19980105
EP 1999-901345	A3	19990104
WO 1999-US261	W	19990104

AB The invention relates in part to the use of independent assay controls (IACs) for the optical communication between an assay device and an instrument in monitoring and performing assays, preferably immunoassays. Preparation of fluorescent energy transfer latex with bovine serum albumin and antibody conjugates and their application in cardiac marker determination are described.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:675875 CAPLUS
DOCUMENT NUMBER: 121:275875
TITLE: Separation of 24 dansylamino acids by capillary electrophoresis with a non-ionic surfactant
AUTHOR(S): Matsubara, Norio; Terabe, Shigeru
CORPORATE SOURCE: Faculty of Science, Himeji Institute of Technology, Kamigori, Hyogo, 678-12, Japan
SOURCE: Journal of Chromatography, A (1994), 680(1), 311-15
CODEN: JCRAEY; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The separation of 24 dansylamino acids was investigated by capillary electrophoresis with an additive of micelles of a non-ionic surfactant,

Tween 20. Although two pairs of peaks, norvaline and methionine derivs., and didansyltyrosine and solvent (methanol), did not show good resolution, other dansylamino acids were well separated within 70 min using 100 mM Tween 20 and pH 2.40. The theor. plate nos. calculated for dansylamino acids were 28000-111000 with a 19-cm capillary column.

L3 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:101282 CAPLUS
DOCUMENT NUMBER: 120:101282
TITLE: Fluorescent energy transfer immunoassay
INVENTOR(S): Lakowicz, Joseph; Maliwal, Badri; Thompson, Richard; Ozinskas, Alvydas
PATENT ASSIGNEE(S): University of Maryland, USA
SOURCE: Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 552108	A2	19930721	EP 1993-400091	19930115
EP 552108	A3	19930922		
R: DE, FR, GB, IT				
CA 2087413	AA	19930718	CA 1993-2087413	19930115
JP 06066802	A2	19940311	JP 1993-6057	19930118
JP 3325939	B2	20020917		
US 5631169	A	19970520	US 1994-183238	19940119
PRIORITY APPLN. INFO.:			US 1992-822233 A	19920117

AB A photoluminometric immunoassay comprises reacting 2 immunoreactants, 1 labeled with a photoluminescent energy transfer donor capable of photoluminescence and the other labeled with a photoluminescent energy transfer acceptor complementary to the donor; exciting the sample with radiation; and calculating the apparent luminescence lifetime to determine the presence of a reaction product. Studies were done using goat anti-mouse IgG labeled with the donor dichlorotriazinylaminofluorescein and mouse IgG labeled with the acceptor tetramethylrhodamine isothiocyanate.

L3 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:15100 CAPLUS
DOCUMENT NUMBER: 116:15100
TITLE: Evaluation of the relative effectiveness of different water-soluble β-cyclodextrin media to function as fluorescence enhancement agents
AUTHOR(S): Frankewich, Raymond P.; Thimmaiah, K. N.; Hinze, Willie L.
CORPORATE SOURCE: Dep. Chem., Wake Forest Univ., Winston-Salem, NC, 27109, USA
SOURCE: Analytical Chemistry (1991), 63(24), 2924-33
CODEN: ANCHAM; ISSN: 0003-2700
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of β-cyclodextrin as well as four water-soluble β-cyclodextrin systems, i.e. urea-solubilized β-cyclodextrin, and the water-soluble derivs., hydroxyethyl-β-cyclodextrin, 2-hydroxypropyl-β-cyclodextrin, and heptakis (2,6-di-O-methyl)-β-cyclodextrin, upon the fluorescence behavior of 14 dansylamino acids and 33 organic/pharmaceutical compds. were determined In addition, fluorescence data on these solutes were obtained in the homogeneous solvents, water and methanol. The use of the more water-soluble β-cyclodextrin systems typically resulted in greater fluorescence emission from these 47 compds. compared to that obtainable with native β-cyclodextrin. It is thought that the added fluorescence enhancements observed are due to the fact

that a greater fraction of the solute mols. are complexed within the protective cyclodextrin cavity at the greater cyclodextrin concns. obtainable with these water-soluble systems. The use of either 2-hydroxypropyl- or 2,6-di-O-methyl-β-cyclodextrin generally resulted in the greatest fluorescence enhancement factors and increased the stability of some fluorescent systems. The former β-cyclodextrin derivative offers an advantage compared to the rest in terms of ease of volume handling/manipulation considerations due to its lower solution viscosity. The results indicate that if a β-cyclodextrin-enhanced fluorescence assay is being contemplated, use of 2-hydroxylpropyl-β-cyclodextrin in lieu of native β-cyclodextrin should be considered.

L3 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:247605 CAPLUS
DOCUMENT NUMBER: 116:247605
TITLE: Enantioseparation of N-dansyl-DL-amino acids by polyacrylamide gel zone electrophoresis
AUTHOR(S): Nishizawa, Hideyuki; Nakajima, Keiko; Kobayashi, Michi; Abe, Yoshihiro
CORPORATE SOURCE: Kyoritsu Coll. Pharm., Tokyo, 105, Japan
SOURCE: Analytical Sciences (1991), 7(6), 959-61
CODEN: ANSCEN; ISSN: 0910-6340
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The enantiomeric separation of 14 N-dansyl-DL-amino acids by polyacrylamide gel zone electrophoresis with the aid of β-cyclodextrin is described. Racemic dansyl-proline, -alanine, -tryptophan, and- phenylalanine were not separated Apparatus previously described by the authors (1986) was used.

L3 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:488845 CAPLUS
DOCUMENT NUMBER: 115:88845
TITLE: Covalent attachment of specific binding members to a solid phase
INVENTOR(S): Pope, Mark R.; Knigge, Kevin M.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 396116	A2	19901107	EP 1990-108317	19900502
EP 396116	A3	19920122		
EP 396116	B1	19970205		
R: DE, ES, FR, IT				
CA 2015938	AA	19901102	CA 1990-2015938	19900502
CA 2015938	C	19990907		
JP 02304364	A2	19901218	JP 1990-116692	19900502
JP 3124018	B2	20010115		
ES 2099699	T3	19970601	ES 1990-108317	19900502
US 5399501	A	19950321	US 1992-852837	19920316
PRIORITY APPLN. INFO.:			US 1989-346108 A	19890502

AB The title attachment comprises reacting a thiolated solid phase and a specific binding member that is complexed to a heterobifunctional coupling agent. The resulting immobilized specific binding member can be used in diagnostic binding assays. The immobilized specific binding members have increased sensitivity, specificity, and stability. The production requires less specific binding member be used. Recombinant human immunodeficiency virus-1 glycoprotein gp41 was attached to amino microparticles by activating gp41 with sulfo-MBS (N-maleimidobenzoyl-N-hydroxysulfosuccinimide ester), preparing thiolated microparticles (amino

microparticles were reacted with sulfo-MBS and then treated with dithiothreitol), and reacting the activated protein with the thiolated microparticles.

L3 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:154307 CAPLUS
DOCUMENT NUMBER: 112:154307
TITLE: Sugar transport by the bacterial phosphotransferase system. Characterization of the sulfhydryl groups and site-specific labeling of enzyme I
AUTHOR(S): Han, Myun K.; Roseman, Saul; Brand, Ludwig
CORPORATE SOURCE: McCollum-Pratt Inst., Johns Hopkins Univ., Baltimore, MD, 21218, USA
SOURCE: Journal of Biological Chemistry (1990), 265(4), 1985-95
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Enzyme I (phosphopyruvate-protein phosphotransferase) is the first protein of the phospho transfer sequence in the bacterial phosphoenolpyruvate:glycose phosphotransferase system. This protein exhibits a temperature-dependent monomer-dimer equilibrium The nucleotide sequence of Escherichia coli ptsI indicates 4 -SH residues per subunit (Saffen, D. W., et al., 1987). In the present expts., the SH groups of the E. coli enzyme were studied with various SH-specific reagents. Titration of enzyme I with DTNB also revealed 4 reacting -SH groups. The kinetics of the DTNB reaction with Enzyme I exhibit biphasic character, with pseudo-first order rate consts. of 2.3 + 10-2/s and 2.3 + 10-3/s at pH 7.5, at room temperature Fractional amplitudes associated with the rate consts. were 25% for the fast and 75% for the slow rate. The slow rate was influenced by ligands that react with Enzyme I (the protein HPr, Mg2+, Mg2+ plus phosphoenolpyruvate), and also by temperature (at the temperature range where the monomer/dimer association occurs). The fractional ratio of the 2 rates remained at 1:3 under these conditions. Thus, under all conditions tested, 2 classes of -SH groups were detected, 1 reacting more rapidly than the other 3 -SH groups. Modification of the fast -SH group results in an active enzyme capable of forming dimer, whereas modification of the slow -SH groups results in inactive and monomeric Enzyme I. The enzyme was labeled with pyrene maleimide under conditions where only the more reactive SH group was derivatized. Hydrolysis by trypsin followed by reverse-phase HPLC anal. of the peptide mixture resulted in only 1 fluorescent peak. This peak was not observed when the more reactive SH residue was protected prior to pyrene maleimide labeling. Amino acid sequencing of the fluorescent peak indicated that the more reactive residue is the C-terminal amino acid residue, cysteine-575. The results provide a means for selectively labeling Enzyme I with a fluorophore at a single site while retaining full catalytic activity.

L3 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:455213 CAPLUS
DOCUMENT NUMBER: 113:55213
TITLE: Automated amino acid analysis using precolumn derivatization with dansylchloride and reversed-phase high-performance liquid chromatography
AUTHOR(S): Simmaco, Maurizio; De Biase, Daniela; Barra, Donatella; Bossa, Francesco
CORPORATE SOURCE: Dip. Sci. Biochim., Univ. La Sapienza, Rome, 00185, Italy
SOURCE: Journal of Chromatography (1990), 504(1), 129-38
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An automated procedure for the precolumn derivatization of amino acids with dansylchloride and a liquid chromatog. method for separation of the derivs. with fluorometric detection in the picomole range are reported. The method involves a simple solvent preparation, which does not require the inclusion of nonvolatile buffers of low ionic strength and delicate pH adjustments. The procedure was also utilized for the identification of COOH-amidated amino acids released from peptides after digestion with carboxypeptidase.

L3 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:169654 CAPLUS
DOCUMENT NUMBER: 110:169654
TITLE: Resolution of DL-amino acids by capillary zone electrophoresis using chiral electrolytes
AUTHOR(S): Gozel, Philippe; Zare, Richard N.
CORPORATE SOURCE: Chem. Dep., Stanford Univ., Stanford, CA, 94305, USA
SOURCE: ASTM Special Technical Publication (1988), 1009(Prog. Anal. Lumin.), 41-53
CODEN: ASTTA8; ISSN: 0066-0558
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:169654
AB By combining the separation power of high-voltage capillary zone electrophoresis with the detection sensitivity of laser-induced fluorescence, subfemtomole amts. of racemic mixts. of labeled amino acids can be completely resolved in short periods of time. The separation is based on the diastereomeric interaction between the amino acids and a chiral Cu(II)-aspartame complex present in the support electrolyte. Effects of electrolyte composition, pH, and temperature are described and discussed as well as linearity and sensitivity of response.

L3 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:548370 CAPLUS
DOCUMENT NUMBER: 105:148370
TITLE: Formation of mixed disulfide adducts at cysteine-281 of the lactose repressor protein affects operator and inducer binding parameters
AUTHOR(S): Daly, Thomas J.; Olson, John S.; Matthews, Kathleen Shive
CORPORATE SOURCE: Dep. Biochem., Rice Univ., Houston, TX, 77251, USA
SOURCE: Biochemistry (1986), 25(19), 5468-74
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The lactose repressor protein has been modified with 3 SH-specific reagents which form mixed SS adducts. Me methanethiosulfonate (MMTS) and 5,5'-dithiobis(2-nitrobenzoic acid) (DTNB) completely reacted with all 3 cysteine (Cys) residues, whereas only partial reaction was observed with didansylcysteine (DDC). Cys-107 and -140 reacted stoichiometrically with MMTS and DTNB, whereas Cys-281 was modified only at higher molar ratios. DDC reacted primarily with Cys-107 and -140. Affinity of MMTS-modified repressor for 40-base-pair operator DNA was decreased 30-fold compared to unmodified repressor, and this decrease correlated with modification of Cys-281. DTNB-modified repressor bound operator DNA with a 50-fold weaker affinity than unmodified repressor. Modification of the lac repressor with DDC decreased operator binding only 4-fold, and nonspecific DNA binding increased 3-fold compared to unmodified repressor. No change in the inducer equilibrium binding constant was observed following modification with any of these reagents. In contrast, inducer association and dissociation rate consts. were decreased .apprx.50-fold for repressor completely modified with MMTS or DTNB, whereas DDC had a minimal effect on inducer binding kinetics. Correlation between modification of Cys-281 and the observed

decrease in rate consts. indicates that this region of the protein regulates the accessibility of the sugar-binding site. The parallel between the increase in the dissociation constant (Kd) for repressor binding to operator, the altered rate consts. for inducer binding, and modification of Cys-281 suggests that this region of the protein is crucially involved in the function of the repressor protein.

L3 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:164657 CAPLUS
DOCUMENT NUMBER: 104:164657
TITLE: Isoelectric focusing of dansylated amino acids in immobilized pH gradients
AUTHOR(S): Bianchi-Bosisio, Adriana; Righetti, Pier Giorgio; Egen, Ned B.; Bier, Milan
CORPORATE SOURCE: Osp. Carlo Borromeo, Milan, Italy
SOURCE: Electrophoresis (1986), 7(3), 128-33
CODEN: ELCTDN; ISSN: 0173-0835
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 21 free amino acids commonly encountered in proteins have been transformed into carrier ampholyte species by reacting their primary amino groups with dansyl chloride. These derivs. can thus be focused in an immobilized pH gradient covering the pH 3.1-4.1 interval, except for arginine, which still retains a pI of 8.8. Due to their inherent fluorescence, the dansyl derivs. are revealed in UV light, with a sensitivity of the order of 2-4 ng/mm2. All nearest neighbors are separated except for the following couples: Asn-Gln, Gly-Thr, Val-Ile and Cys-Cys2, with a resolving power, in a ΔpI scale, of the order of 0.0018 pH units. Except for a few cases (notably the aromatic amino acids) the order of pI values is well correlated with the pK values of carboxyl groups, suggesting that the latter are not altered by dansylation. From the set of pKCOOH-pI values of the different amino acids, the pK of the tertiary amino group in the dansyl label has been calculated to be 5.11. Knowing the pK of the amino-dansyl and the pI of the excess, free dansyl label (pI = 3.34) a pK of 1.57 was derived for its sulfonic acid group.

L3 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:488190 CAPLUS
DOCUMENT NUMBER: 103:88190
TITLE: Analyses of dansyl and dabsyl amino acids by reverse-phase high-performance liquid chromatography
AUTHOR(S): Muramoto, Koji; Kamiya, Hisao
CORPORATE SOURCE: Sch. Fish. Sci., Kitasato Univ., Iwate, 022-01, Japan
SOURCE: Nippon Suisan Gakkaishi (1985), 51(5), 817-24
CODEN: NSUGAF; ISSN: 0021-5392
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Dansyl and dabsyl amino acids were separated by reverse-phase high-performance liquid chromatog. on a short column (4.6 + 50 mm) packed with 3 μm ODS particles using a gradient formed from acetone and 10 mM Na phosphate buffer at pH 6.5 or 7.0. The light absorption of the derivs. was used for the detection giving a sensitivity of less than 50 pmol for a dansyl derivative or 10 pmol for a dabsyl derivative This system was applicable to the amino acid analyses, amino-terminal analyses, and carboxyl-terminal analyses with less than 1 nmol of peptides.

L3 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:443274 CAPLUS
DOCUMENT NUMBER: 105:43274
TITLE: Electrokinetic separation of chiral compounds
AUTHOR(S): Gassmann, E.; Kuo, J. E.; Zare, R. N.
CORPORATE SOURCE: Dep. Chem., Stanford Univ., Stanford, CA, 94305, USA
SOURCE: Science (Washington, DC, United States) (1985), 230(4727), 813-14

CODEN: SCIEAS; ISSN: 0036-8075
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Femtomole amts. of racemic mixts. of derivatized amino acids were resolved and analyzed rapidly in about 10 min by means of high-voltage zone electrophoresis with laser-fluorescence detection. The electrophoresis was performed in capillary columns containing a chiral support electrolyte. Dansyl DL-amino acids were resolved by the diastereomeric interaction between the DL-amino acid and the copper(II) complex of L-histidine present in the support electrolyte. A combination of electro-osmotic and electrophoretic action caused all species, pos. charged, neutral, and neg. charged, to pass through the 0.5 nL detection volume where they were subjected to laser excitation.

L3 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:193121 CAPLUS
DOCUMENT NUMBER: 98:193121
TITLE: Characterization of the uptake and toxicity of a fluorescent thiol reagent
AUTHOR(S): Olive, Peggy L.; Biaglow, John E.; Varnes, Marie E.; Durand, Ralph E.
CORPORATE SOURCE: Sect. Radiobiol., Johns Hopkins Oncol. Cent., Baltimore, MD, 21205, USA
SOURCE: Cytometry (1983), 3(5), 349-53
CODEN: CYTODQ; ISSN: 0196-4763
DOCUMENT TYPE: Journal
LANGUAGE: English
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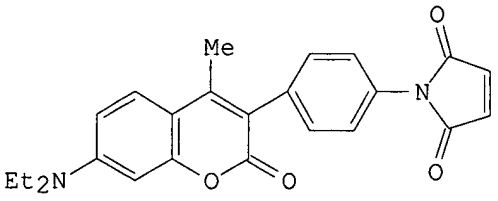

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AB 3-(4-maleimidylphenyl)-4-methyl-7-diethylaminocoumarin (CPM)(I) [76877-33-3], a fluorescent thiol-binding agent, was nontoxic to Chinese hamster V-79 cells (2 + 105 cells/mL) exposed to 2.5 μg/mL for 30 min. However, both toxicity and cellular binding were directly dependent on the drug-cell ratio. Using flow cytometry, cellular binding of CPM correlated with inhibition of DNA synthesis. In cells pretreated with the thiol-binding drugs N-ethylmaleimide [128-53-0], diamide [10465-78-8], and di-Et maleate [141-05-9] or the carcinogens 4-nitroquinoline 1-oxide [56-57-5] and furylfuramide [494-47-3], the subsequent binding of CPM was reduced by ≥40%.

L3 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:107744 CAPLUS
DOCUMENT NUMBER: 98:107744
TITLE: In-beam electron impact mass spectrometry of dansyl amino acids and dansyl oligopeptides
AUTHOR(S): Sakurai, Atsushi; Nohda, Shigeru; Okumura, Yasuaki; Tsujimoto, Kazuo; Funakura, Saichi; Ohashi, Mamoru
CORPORATE SOURCE: Fac. Sci., Shizuoka Univ., Shizuoka, 422, Japan
SOURCE: Nippon Kagaku Kaishi (1982), (11), 1763-72
CODEN: NKAKB8; ISSN: 0369-4577
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Characteristics of the in-beam impact (IBEI) mass spectra of 20 dansyl amino acids and 12 dansyl leucine- and isoleucine-containing oligopeptides and

their Me esters are described. For dansyl amino acids the IBEI mass spectra measured under rapid heating at 200-300° gave abundant [M]+ ions as their mol. ions. In the case of dansyl di- and tripeptide esters, the in-beam spectra also gave abundant [M]+ ions as their mol. ions as well as amino-acyl fragments. However, dansyl peptides and dansyl pentapeptide ester exhibited abundant [M + 1]+ ion peaks as their mol. ions and the spectral features were combination of those of the conventional electron impact spectrum and some peaks originating from the [M + 1]+ ions. As the peptide chains are lengthened, the fragment ion peaks corresponding to the conventional electron impact spectra of the cyclopeptide derivs. formed by thermal cyclization in the mass spectrometer were observed The sequence-determining peaks were observed as the abundant and major peaks in all IBEI spectra of these dansyl oligopeptide derivs. The [M + 1]+ ions are derived from the ionization of associated mols. or mol. clusters upon electron impact in a vapor phase near the surface of the probe.

L3 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1981:456648 CAPLUS
DOCUMENT NUMBER: 95:56648
TITLE: Spectroscopic studies of stellacyanin derivatives
AUTHOR(S): Knaff, David B.; Harsh, Claudia E.; Holwerda, Robert A.
CORPORATE SOURCE: Dep. Chem., Texas Tech Univ., Lubbock, TX, 79409, USA
SOURCE: Biochemistry (1981), 20(15), 4333-6
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two covalently modified derivs. of the apoprotein of the blue Cu protein, stellacyanin (I), were prepared In one case, a dansyl group was linked to the cysteine at the Cu-binding site of apo-I; in the other, a nitrophenol moiety was attached to this same cysteine. Fluorescence yields and emission maximum of the dansylated protein and pK detns. of the nitrophenol group linked to the protein suggest that the solvent microenvironment at the Cu-binding site of apo-I is quite similar to bulk water.

L3 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1980:465127 CAPLUS
DOCUMENT NUMBER: 93:65127
TITLE: On the evaluation of photoreceptor properties by micro-fluorometric measurements of fluorochrome diffusion
AUTHOR(S): Hochstrate, P.; Rueppel, H.
CORPORATE SOURCE: Max-Volmer-Inst., Tech. Univ. Berlin, Berlin, D-1000/12, Fed. Rep. Ger.
SOURCE: Biophysics of Structure and Mechanism (1980), 6(2), 125-38
CODEN: BSMHBH; ISSN: 0340-1057
DOCUMENT TYPE: Journal
LANGUAGE: English
AB By use of the microfluorometric technique it is possible to study the diffusion of the fluorochrome didansylcystine (DDC) within isolated frog rod outer segments (ROS) which are immobilized in agarose gel. For this purpose, a leak is applied to 1 end of the ROS by a short hypotonic shock. The DDC enters the rod and migrates through the whole outer segment. Following the propagation of the fluorescence boundary with time the cytoplasmic diffusion constant can be determined if a chromatog. model is used to allow for the considerable binding of DDC to the inner membrane surface. With a binding constant K = 5 + 10-4 cm the cytoplasmic diffusion constant was D = 1.3·10-6 cm2/s whereas Dg = 2 + 10-6 cm2/s and DR = 3.5 + 10-6 cm2/s in agarose gel or Ringer solution, resp. Using the mobility reduction factor given by D/DR ≈ 0.4 to calculate the cytoplasmatic conductivity an inner resistance per length of 1.7 M Ω/μ could be calculated for a frog rod which is in good agreement with

corresponding data obtained from electrophysiol. measurements.

L3 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1978:594191 CAPLUS
DOCUMENT NUMBER: 89:194191
TITLE: Fluorescent localization of membrane sites in glycerinated chicken skeletal muscle fibers and the relationship of these sites to the protein composition of the Z disk
AUTHOR(S): Lazarides, Elias; Granger, Bruce L.
CORPORATE SOURCE: Div. Biol., California Inst. Technol., Pasadena, CA, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1978), 75(8), 3683-7
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Didansyl derivs. of amino acids and N-phenyl-1-naphthylamine were used to localize membrane hydrophobic sites in glycerol-extracted chicken skeletal muscle fibers. Epifluorescence microscopy revealed that such sites coincide with the distribution of mitochondria, the transverse tubular (T) system and the sarcoplasmic reticulum (SR). They are specifically associated with myofibril Z lines and occasionally extend from one Z plane to the next longitudinally along the muscle fiber. The hydrophobic probes interact noncovalently with the Z lines, and their induced fluorescence can be eliminated by exposure of the myofibrils to ionic detergents, nonionic detergents, or phospholipase C, before or after addition of the hydrophobic label. Extraction of glycerinated fibers with 0.6M KI removes the majority of sarcomeric actin and myosin and leaves a scaffold of longitudinally interconnected Z planes. Membrane fluorescence remains tightly associated with these Z planes and with the remnant mitochondria. Shearing of such scaffolds results in the cleavage of the longitudinal connections and the production of large sheets of interconnected, close-packed Z disks in a honeycomb-like array. Comparison of the localization of 2 Z disk proteins, desmin and α-actinin, with that of the membrane material reveals that α-actinin is localized in the interior of each myofibril Z disk, whereas both desmin and the membrane material surround each disk. Thus, glycerination and KI extraction of muscle fiber leaves remnants of T system and SR membranes tightly associated with the Z disk honeycomb lattice. Because the Z disks are connected at their preipheries through the T system to the plasma membrane, desmin and this membrane structure appear to be connected throughout the whole Z plane up to and including the plasma membrane. The congruent localization of desmin and the T system strongly suggests that this mol. mediates the adhesion of this membrane system around each Z disk.

L3 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1979:83054 CAPLUS
DOCUMENT NUMBER: 90:83054
TITLE: The separation of dansyl amino acids by reversed-phase high performance liquid chromatography
AUTHOR(S): Wilkinson, J. Michael
CORPORATE SOURCE: Dep. Biochem., Univ. Birmingham, Birmingham, UK
SOURCE: Journal of Chromatographic Science (1978), 16(11), 547-52
CODEN: JCHSBZ; ISSN: 0021-9665
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The dansyl amino acids were separated by reversed-phase (high-performance liquid chromatog. (HPLC) on a single column in .apprx.30 min, using a linear gradient formed from acetonitrile and Na phosphate buffers of approx. neutral pH. The effect of retention times of the pH and ionic strength of the eluting buffer was investigated and, by an appropriate choice of these variables, a separation of most of the derivs. of the 20 amino acids commonly

found in proteins may be made on a column of either μBondapak C18, or Spherisorb 5ODS. The greatest difference between the 2 columns was in the retention of the basic dansyl derivs., particularly α-Dns-His and Dns-Arg. Owing to the quenching of the fluorescence of the dansyl amino acids in aqueous solns., the UV absorbance at 250 nm was used for detection, giving a sensitivity of .apprx.100 pmol for a single component. This system may be useful for the anal. of peptides at high sensitivity and for the quantitation of N- and C-terminal amino acids.

L3 ANSWER 27 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:565437 CAPLUS
DOCUMENT NUMBER: 81:165437
TITLE: Reaction of cystathionase with the fluorescent probe bis(dansyl)cystine
AUTHOR(S): Oh, Kyung-Ja; Churchich, Jorge E.
CORPORATE SOURCE: Dep. Biochem., Univ. Tennessee, Knoxville, TN, USA
SOURCE: Journal of Biological Chemistry (1974), 249(15), 4737-41
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Rat liver γ-cystathionase was shown to contain 17 SH groups and 4 disulfide bridges/mole enzyme. Titration of 4 SH groups with 5,5'-dithiobis(2-nitrobenzoic acid) (II) caused 95% inactivation of the homoserine deaminase activity. The reactive SH groups of I also underwent an exchange reaction with the fluorescent dye, bis(dansyl)cystine (III). In analogy to the reaction with II, the reaction of <2 SH groups with III brought .apprx.40% decrease in the homoserine deaminase activity. Anal. of the fluorescent properties of dansylated I revealed that these were identical with the properties exhibited by III in the nonpolar mixture, dioxane-water (95:5). Thus, the reactive SH groups of I critically connected with catalytic activity are surrounded by an environment of low polarity. It was also proposed, on the basis of absorption and fluorescence results, that loss of catalytic activity cannot be correlated with the dissociation of the cofactor, pyridoxal 5-phosphate. The reactive SH groups probably do not participate in the binding of cofactor to the enzyme active site.

L3 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:424282 CAPLUS
DOCUMENT NUMBER: 83:24282
TITLE: Role of mercapto groups in mitochondrial aspartate aminotransferase from beef kidney
AUTHOR(S): Scandurra, R.; Churchich, J. E.; Politi, L.; Spagnoli, R.; Polidoro, G.
CORPORATE SOURCE: Inst. Biol. Chem., Univ. Chieti, Chieti, Italy
SOURCE: Acta Vitaminologica et Enzymologica (1974), 28(6), 290-2
CODEN: AVEZA6; ISSN: 0300-8924
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reactivity of beef kidney aspartate aminotransferase towards fluorescein mercuric acetate (I), di-dansyl-L-cystine (II), and 4,4'-bis-dimethylaminodiphenylcarbinol (III) was tested in order to establish the role of SH groups in the catalytic activity of the enzyme. Three moles of I were bound/mole enzyme, the fluorescence decreased, and enzyme activity was lost. II and III were bound by the enzyme, but there was no loss of activity. It is suggested that those SH groups reacting with II and III are localized at polar areas of the protein and do not participate in catalysis, whereas those which react with I are localized in a nonpolar area near the active site and are involved in catalytic activity.

L3 ANSWER 29 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1972:430626 CAPLUS

DOCUMENT NUMBER: 77:30626
TITLE: Proximity relations in rhodopsin
AUTHOR(S): Wu, Cheng-Wen; Stryer, Lubert
CORPORATE SOURCE: Dep. Mol. Biophys. Biochem., Yale Univ., New Haven, CT, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1972), 69(5), 1104-8
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Energy transfer was used as a spectroscopic ruler to deduce proximity relations within bovine rhodopsin in digitonin solution Rhodopsin was specifically labeled with fluorescent chromophores at 3 sites. Site A was alkylated by fluorescent derivs. of iodoacetamide. Site B was labeled by fluorescent disulfides, by a SS-SH interchange reaction. Sites A and B are SH residues. Acridine derivs. were tightly bound to site C by noncovalent interactions. The labeled rhodopsins retained their 500 nm absorption band and were regenerable after bleaching, suggesting that the fluorescent probes did not grossly perturb the conformation of the protein. A fluorescent chromophore at 1 of these sites served as the energy donor, while 11-cis-retinal was the energy acceptor. The efficiency of singlet-singlet energy transfer was determined from the quantum yield and excited-state lifetime of the donor in the presence and absence of the acceptor. By Foerster's theory, the apparent distances between 11-cis-retinal and sites A, B, and C were calculated to be 75, 55, and 48 A, resp. Energy transfer measurements on rhodopsin labeled at 2 of these sites gave these apparent distances: 35 Å for A to B, 32 for A to C, and 30 for B to C. These energy transfer studies suggest that the rhodopsin mol. has a length of at least 75 Å. Thus, the rhodopsin mol. appears to be sufficiently long to traverse the disc membrane. Rhodopsin might act as a light-controlled gate.

L3 ANSWER 30 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1973:58763 CAPLUS
DOCUMENT NUMBER: 78:58763
TITLE: Separation of dansylamino acids by two-dimensional chromatography on finely textured paper. III. Separation of dansylglycine, dansylthreonine, dansylacid. Influence of eucalyptol (or cineol) in the mobile phase
AUTHOR(S): Munier, R. L.; Faivre, B.; Thommegay, C.
CORPORATE SOURCE: Inst. Pasteur, Paris, Fr.
SOURCE: Chromatographia (1972), 5(12), 305-9
CODEN: CHRGB7; ISSN: 0009-5893
DOCUMENT TYPE: Journal
LANGUAGE: French

AB The most hydrophilic dansylamino acids can be separated using the solvent mixture PrOH-eucalyptol-98% HCO2H-H2O (200:200:80:85). The separation of dansylthreonine and dansylglycine is due to the eucalyptol in the mobile phase used for developing the chromatogram in the second dimension.

L3 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1972:22671 CAPLUS
DOCUMENT NUMBER: 76:22671
TITLE: Mass spectrometry of 1-dimethylaminonaphthalene-5-sulfonyl amino acids
AUTHOR(S): Seiler, N.; Schneider, H. H.; Sonnenberg, K. D.
CORPORATE SOURCE: Arbeitsgruppe Neurochem., Max-Planck-Inst. Hirnforsch., Frankfurt/M.-Niederrad, Fed. Rep. Ger.
SOURCE: Analytical Biochemistry (1971), 44(2), 451-7
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The principles of the mass spectrometric fragmentations of 1-dimethylaminonaphthalene-5-sulfonyl (DANS) amino acids and the

possibilities of mass spectrometry of DANS amino acids for their identification, based on a study, are discussed. Details of materials source and methodol. are given. Mass nos. and relative peak heights of mol. ions and characteristic fragments of DANS amino acids are tabulated. Relative peak heights of the mol. ions were dependent on the temperature of the inlet system, in addition to the mol. structure of the DANS amino acids. The com. available betaine form of DANS arginine decomposed when applied directly to mass spectrometry. In this case no mol. ion was observable but instead prominent peaks were found and these are given. No mol. ion was detectable in the spectra of bis-DANS-histidine. As for the mass spectra of the DANS amino acid Me esters (Marino, et al., 1968), the least fragmentation and, correspondingly, the highest intensities of the mol. ions were observed for DANS-leucine, and, comparable to the DANS-indoleamine derivs., for DANS-tryptophan. Low intensities were shown for several other compds. studied. The present study supported previous observations of the authors on mass spectrometric identifications of dansylated amines (1970). It was concluded that the combination of mass spectrometry with an appropriate separation method, i.e., thin-layer chromatog. in the case of DANS derivs., seems to be a powerful tool for the identification of these compds.

L3 ANSWER 32 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1967:440166 CAPLUS
DOCUMENT NUMBER: 67:40166
TITLE: Fluorescence of dansyl amino acids in organic solvents and protein solutions
AUTHOR(S): Chen, Raymond F.
CORPORATE SOURCE: Natl. Heart Inst., Bethesda, MD, USA
SOURCE: Archives of Biochemistry and Biophysics (1967), 120(3), 609-20
CODEN: ABBIA4; ISSN: 0003-9861
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The dansyl amino acids fluoresce only weakly in water; the peaks of the corrected emission spectra are at .apprx.580 mμ and the quantum yields are <0.1. However, in solvents of low dielec. constant, the emission shifts toward the blue and the quantum yield increases markedly. Thus, in dioxane, the fluorescence of dansyl DL-tryptophan is maximum at 500 mμ, and the quantum yield is 0.70. Dansyl L-proline can be determined fluorometrically in dioxane down to 3 + 10-13 mole as a result of its high fluorescence efficiency and favorable spectral characteristics. Dansyl amino acids bind to proteins having hydrophobic binding sites such as bovine serum albumin (BSA) and sperm whale apomyoglobin. Concomitantly, the fluorescence shifts toward the blue, and there is a marked increase in fluorescence quantum yield. Fluorometric titration shows that 2 moles of dansyl L-proline bind to each mole of BSA, with a statistical dissociation constant of 2.2 + 10-5M. Species differences in serum albumins are reflected in the differences in the spectra of albumin-bound dansyl L-proline. The depolarization of fluorescence of dansyl amino acids bound to BSA and sperm whale apomyoglobin allows calcn. of rotational relaxation times of those proteins; the fluorescence lifetimes of bound dansyl amino acids are in the range of 2 + 10-8 sec. Such quant. data on dansyl amino acid fluorescence have long been lacking, and these results have implications for amino acid anal. techniques and fluorescent probe studies of proteins. 33 references.

L3 ANSWER 33 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:47410 CAPLUS
DOCUMENT NUMBER: 64:47410
ORIGINAL REFERENCE NO.: 64:8910b-e
TITLE: Separation of 1-dimethylaminonaphthalene-5-sulfonamido acids (DNS-amino acids) by thin layer chromatography
AUTHOR(S): Cole, M.; Fletcher, J. C.; Robson, A.
CORPORATE SOURCE: Wool Ind. Res. Assocn. Torridon, UK
SOURCE: Journal of Chromatography (1965), 20(3), 616-18

CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The 2-dimensional, thin-layer chromatog. of the DNS-derivs. of the common amino acids was carried out on silica gel G, with (A) C6H6-pyridine-AcOH (40:10:1 by volume) and (B) BuOH saturated with 0.2N NaOH. All but leucine and isoleucine were separated; these can be separated by using (C) BuOH-CHCl3(3:97 by volume) as the 2nd solvent. The Rf values are tabulated. DNS-derivative of, R. value referred to DNS-amide, A, B, C; Isoleucine, 0.87, 0.65, 0.19; Leucine, 0.83, 0.63, 0.10; Valine, 0.77, 0.54, 0.13; Proline, 0.70, 0.24, 0.07; Phenylalanine, 0.59, 0.51, 0.07; Methionine, 0.52, 0.43, ; Alanine, 0.47, 0.37, ; Tyrosine(di-DNS-), 0.46, 0.48, ; Lysine(di-DNS-), 0.40, 0.54, ; Tryptophan, 0.34, 0.45, ; Tyrosine(N(α)-DNS-), 0.32, 0.53, ; Glycine, 0.32, 0.32, ; Histidine(di-DNS-), 0.24, 0.32, ; Threonine, 0.18, 0.28, ; Glutamic acid, 0.16, 0.05, ; Serine, 0.15, 0.25, ; Methionine sulfone, 0.09, 0.20, ; Aspartic acid, 0.06, 0.04, ; Cysteine, 0.04, 0.40, ; Asparagine, 0.03, 0.15, ; Glutamine, 0.03, 0.15, ; Cystine, 0.02, 0.35*, ; Cysteic acid, 0.0, 0.04, ; Histidine (N(α)-DNS-), 0.0, 0.08, ; Lysine(N(α)-DNS-), 0.0, 0.12, ; Arginine, 0.0, 0.16, ; Histidine(N(Im)-DMS-), 0.0, 0.20, ; Lysine(N(ε)-DSN-), 0.0, 0.26, ; Tyrosine(O-DNS-), 0.0, 0.33, ; *Tails.

L3 ANSWER 34 OF 34 CAOLD COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: CA64:8910c CAOLD
TITLE: separation of 1-dimethylaminonaphthalene-5-sulfonamido acids by thin-layer chromatography
AUTHOR NAME: Cole, Martin; Fletcher, J. C.; Robson, A.